

**NOTES ON AGERATINA AND A NEW SPECIES OF BARTLETTINA
(EUPATORIEAE: ASTERACEAE)**

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ABSTRACT

Corrections are noted in the recent key to *Ageratina* in Mesoamerica. These include the presence of *A. glauca* (Schultz-Bip. ex Klatt) R.M. King & H. Robinson in Guatemala, the identity of *A. motozintlensis* R.M. King & H. Robinson with *A. zunilana* (Standl. & Steyermark) R.M. King & H. Robinson, and *A. thomasii* R.M. King & H. Robinson with *Eupatorium sazorum* Standl. & Steyermark, which is transferred here to *Ageratina*. *Bartlettina ornata* is described as new from Guatemala and Chiapas.

KEY WORDS: *Ageratina*, *Bartlettina*, Eupatorieae, Asteraceae, Mesoamerica

The recent paper on *Ageratina* in Mesoamerica (Robinson 1990) proves to have a number of errors including one inserted in press and some changes based on subsequent information. These changes can be corrected in copies of the text and key as indicated below. One change involves the need for the following new combination.

***Ageratina saxorum* (Standl. & Steyermark) R.M. King & H. Robinson, comb. nov.** BASIONYM: *Eupatorium sazorum* Standl. & Steyermark, Publ. Field Mus. Nat. Hist., Bot. Ser. 23:182. 1944. HOLOTYPE: GUATEMALA. San Marcos: Steyermark 36075 (F). *Fleischmannia sazorum* (Standl. & Steyermark) R.M. King & H. Robinson, *Phytologia* 49:5. 1981.

***Ageratina thomasii* R.M. King & H. Robinson, *Phytologia* 69:73. 1990.** HOLOTYPE: MÉXICO. Chiapas: Croat 47279 (US).

The species has been erroneously considered a *Fleischmannia* in previous studies by the authors (King & Robinson 1987, p. 289, 530, 538). The species runs in the recent key to Mesoamerican *Ageratina* to *A. thomasii* of Chiapas (Robinson 1990), which is treated here as a synonym. The *Ageratina* paper also has four other errors. The key shows a flaw inserted in press in placement of the second half of couplet 7, which should be located after couplet 16, rather than after couplet 10. The legend for *Ageratina subcoriacea* R.M. King & H. Robinson should be corrected to show the repository as DS rather than US. The latter is correct in the text. Other changes can be noted for anyone wishing to annotate the key. The author accepts the conclusion of B.L. Turner, who has annotated the type of *Ageratina motozintlensis* R.M. King & H. Robinson as *A. zunilana* (Standl. & Steyermark) R.M. King & H. Robinson. The differences in sizes of many parts of the plants do not seem taxonomically important. Added to the flora is *Ageratina glauca* (Schultz-Bip. ex Klatt) R.M. King & H. Robinson, which would key close to *A. pringlei* (B.L. Robinson & Greenm.) R.M. King & H. Robinson. The two differ respectively by the petioles being 0.1-0.3 cm long, the leaf blades being elliptic-ovate, and the inflorescence being corymbose versus the petioles being 0.5-2.0 cm long, the leaf blades being deltoid, and the inflorescence being thyrsoid.

A review of the genus *Bartlettina* in Mesoamerica shows the need to recognize the following undescribed species.

Bartlettina ornata R.M. King & H. Robinson, *sp. nov.* HOLOTYPE: GUATEMALA. Chimaltenango: Chichavec; alt. 2400-2700 m. Shrub with wand-like stems about 8 ft high. Flowers purple. Growing in a shady ravine beside a stream. Rare. "Chichavai." March 1, 1933. Skutch 904 (US). PARATYPES: MÉXICO. Chiapas: Along road between Motozintla de Mendoza and Siltepec, 26-30 miles N of Motozintla 9.5-4.5 miles S of Siltepec; disturbed primary forest; elev. 1000-1300 m. 1.5 m; flowers white. 12 Feb. 1979. Croat 47454 (MO,US); 21.5 miles NW of Motozintla; 1.3 miles E of El Porvenir; disturbed primary cloud forest; elev. 1770 m. Shrub 3 m; flowers lavender. 11 Feb. 1979. Croat 47339 (MO,US); Municipio of Motozintla de Mendoza, along the road from Huixtla to El Porvenir and Siltepec, on the north and west slope of Cerro Mozotal below the microwave tower, steep slope, evergreen cloud forest with *Quercus*, *Pinus*, *Abies*, *Drimys*, *Photinia*, *Clethra*, *Cornus*, and *Symplocos*; elev. 3000 m. Flowers lavender; shrub 10 feet tall. 30 December 1972. Breedlove & Thorne 31188 (CAS,US); Along hwy. Mex. 190, 10 km SW of Motozintla. 15° 20' N, 92° 17' W; deciduous forest in ravine, with *Carpinus caroliniana* dominant, *Hedyosmum mexicanum*, *Sechium compositum*, *Quercus*; alt. 1725 m. 1 m tall; inflorescence pale purplish; flowers odorless. 24 Dec. 1985. Nee & Andres 32925 (NY,US,XAL); Municipio of Union Juárez, on SE side of Volcán Tacaná,

steep slopes with montane rain forest, *Quercus*, *Pinus*, *Billia*, *Turpinia*, *Saurauia*, *Ostrya*, *Dendropanax*, and *Nectandra*; elev. 2200 m. Flowers lavender. 23 November 1980. Breedlove & Almeda 47719 (CAS,US).

GUATEMALA. Dept. unknown: Inter Sta. (illegible) et Sta. Lucia. Jan. 1878. *Bernoulli & Cario* 1449 (GOET). Chimaltenango: Between Los Idolos and Los Chocoyos, road to Panajachel, common in wet thicket along river, alt. 2400 m. Flowers lilac; shrub 3 m. Jan. 15, 1966. *Molina, Burger, & Wallenta* 16212 (F); Barranca Los Chocoyos, near Idolos bridge about 5 km W of Patzún, Sierra Madre Mountains; alt. 2000 m. Flowers purple; shrub (weak) 2 m tall. Dec. 21, 1972. *Williams, Molina, & Williams* 41560 (F); Calderas. Oct. 25, 1937. *Johnston* 1115 (F); Slopes of Volcán de Acatenango, above Las Calderas, in dense wet *Chiranthodendron* forest, alt. 2400-2700 m. Jan. 3, 1939. *Standley* 61814, 61950 (F); Quisaché, in a moist forested barranca; alt. 1800 m. Jan. 5, 6, 1939. *Standley* 62024 (F). Jalapa: Sierra Miramundo, above Mataque-scuintla, cloud forest; alt. 2800 m. Herb 1 m. Feb. 13, 1949. *Williams & Molina* 15526 (F). Quezaltenango: Aguas Amargas, on the western slope of Volcán de Zunil, wet hillside forest; alt. c. 2450 m. Shrub 2 m tall, heads purple. Jan. 14, 1941. *Standley* 83363 (F); Volcán de Zunil, at and above Aguas Amargas, moist forest; alt. 2430-2850 m. Shrub 6 ft.; heads pale purple. Feb. 17, 1939. *Standley* 65438 (F); Volcán Santa María; alt. 8000-11500 ft. Jan. 24, 1896. *Nelson* 3718 (US); Volcán Santo Tomás; alt. 2500-3700 m. "flor celeste" Shrubby, 8-10 ft.; flowers lilac, involucle pale green; leaves membranaceous, dark grass-green above, pale green beneath with a gray pubescence on midrib. Jan. 22, 1940. *Steyermark* 34705 (F); "flor de rosa" Shrubby, 8-12 ft. tall; flowers lilac; leaves regular, similar in shape throughout. Jan. 22, 1940. *Steyermark* 34717 (F). Quiché: 1942. *Aquilar* 971 (F). Sacatepéquez: trail above La Cumbre de Calderas (radio towers, W of San Miguel Dueñas, 2 km W of San Juan Calderas); lower forest. Spindly shrub, 2-3 m tall; flowers purplish. Oct. 23, 1990. *Norr bom* 90G-27 (US); Acatenango. Feb. 20, 1905. *Kellerman* 4988 (US); Nacimiento del Cangrejal, Cuesta de Las Cañas, colinas humedas; alt. 1650 m. Fls. moradas; arbusto 2 m. Feb. 3, 1949. *Molina* 15445 (EAP,US); Cuesta de la Cañas, above Antigua, damp thicket; alt. c. 1950 m. Shrub 10 ft.; buds only. Dec. 6, 1938. *Standley* 58951 (F); Volcán de Agua; alt. 9000 pp. Apr. 1890. *J.D. Smith* 2326 (F,US); Slopes of Volcán de Agua, above Santa María de Jesús, damp forest; alt. 2250-3000 m. Feb. 11, 1939. *Standley* 65092 (F). San Marcos: Mountains along the road between San Marcos and Serchil, dense *Abies-Cupressus* forest; alt. 2700-3150 m. Shrub 2 m tall; flowers purple. Jan. 30, 1941. *Standley* 85384 (F); Puente de Nahuatl-aa, near San Marcos; damp ravine, alt. c. 2280 m. Shrub 5 ft.; heads

pale purple. Feb. 22, 1939. *Standley* 66230 (F); Río Vega, near San Rafael and Guatemala-México boundary, Volcán Tacaná; alt. 2500-3000 m. Shrub 8 ft. tall. Feb. 20, 1940. *Steyermark* 36222 (F); between San Rafael Pie de la Cuesta and Palo Gordo, west-facing slope of the Sierra Madre Mountains, wet mountain forest near Aldea Fraternidad; alt. 1800-2400 m. Shrub 4 m high. Dec. 10-18, 1963. *Williams, Molina, & Williams* 25768 (F,US); Cerro Tumbador, Sierra Madre Mountains, about 15 km W of San Marcos, ravines in mixed forest on slopes; alt. 2600 m. Flowers pink; shrub 6 m tall. Dec. 15, 1962. *Williams, Molina, & Williams* 29088 (F); Along road between San Sebastián at km 21 and km 8, 8-18 miles NW of San Marcos, shaded slopes at base of cliff; alt. 2700-3800 m. Shrub 10 ft. tall; flowers lavender. Feb. 15, 1940. *Steyermark* 35747 (F); Volcán Tajumulco, between Las Canajas and top of ridge, 7 mi. from San Sebastián, upper south-facing slopes; alt. 3300-3900 m. Feb. 16, 1940. *Steyermark* 35852 (F); Tajumulco Volcán, Sierra Madre Mountains about 8-10 km W of San Marcos, montane cloud forest area on outer slopes; alt. ca. 2300 m. Herb 1 m tall. Dec. 31, 1964-Jan. 1, 1965. *Williams, Molina, Williams, Gibson, & Laskowski* 26850 (F); In forest; alt. 2400-2700 m. Flowers lilac; 1 m tall. Jan. 3, 1965. 27204 (F); Vicinity of town of Tajumulco, NW slopes of Volcán Tajumulco, slopes of barranca; alt. 2300-2800 m. Shrubby 3-5 ft. tall, leaves dark green above, paler beneath, membranaceous. Feb. 28, 1940. *Steyermark* 36865 (F); Road to Tajumulco Volcano, Sierra Madre Mountains, near San Andrés, montane cloud forest, in forest; alt. 2900 m. Tree 5 m tall; heads light pink. Jan. 2, 1965. *Williams, Molina, Williams, Gibson, & Laskowski* 27045 (F). Sololá: Volcán Atitlán. Feb. 16, 1906. *Kellerman* 5957(US); Volcán Atitlán, 8000 ft., Jan. 23, 1907. *Kellerman* 6288 (F); Volcán Tolimán (side facing Volcán Atitlán to summit); alt. 2700-3100 m. Shrub 20 ft. tall. June 13, 1942. *Steyermark* 47588 (F); Near Nahuala, Sierra Madre Mountains, ravines, alt. 2500 m. Flowers pale purple; shrub 5 m tall. Dec. 17, 1962. *Williams, Molina, & Williams* 29180 (F).

Plantae fruticosae ad 3 m altae mediocriter ramosae; caules fistulosi vel non fistulosi brunnescentes interdum evanescititer puberuli. Folia opposita, petiolis plerumque 1.5-6.0 cm longis; laminae late ovatae vel subrhomboidae plerumque 5-16 cm longae et 4-16 cm latae in tertiam inferioriam latissimae base obtusae margine argute acutae saepe in partibus latissimis valde dentatae vel acuminate angulatae apice breviter vel anguste acuminatae in superficiis sparse puberulae vel subglabrae subtus minute glandulopunctatae ex 5-20 mm supra basem leniter trinervatae. Inflorescentiae pyramidaliter paniculatae; bracteae in nodis inferioribus

2-3 foliiformes. Capitula c. 7 mm alta; bracteae involuci 16-18 anguste oblongae 4-5 mm longae c. 1 mm latae apice scariosae anguste rotundatae; receptacula breviter vel longe spinulifera. Flores 5-12; corollae plerumque lavandulae 4.0-4.5 mm longae, tubis 2.0-2.5 mm longis, faucibus c. 2 mm longis, lobis c. 0.4 mm longis et 0.5 mm latis extus puberulis; appendices antherarum subgradatae c. 0.2 mm longae et latae. Achaenia c. 2 mm longa glabra; setae pappi 3-4 mm longae apice mediocriter attenuatae.

The new species is represented by many specimens that have been previously identified as *Bartlettina oresbia* (B.L. Robinson) R.M. King & H. Robinson, *B. oresbiooides* (B.L. Robinson) R.M. King & H. Robinson, and *B. luxii* (B.L. Robinson) R.M. King & H. Robinson, and more recently as *B. breedlovei* R.M. King & H. Robinson and *B. hylobia* (B.L. Robinson) R.M. King & H. Robinson. The leaves commonly have lateral angles on the blades as in the former two species, but the heads have fewer than 20 florets as in the last species. Recent identity with *B. hylobia* has been mostly because of the reduced number of florets, but the latter species proves to be a rather local endemic in Chiapas, with strictly ovate leaf blades and 14-20 florets in each head. The new species is distinct from all others by the heads with 5-12 florets and by the spinose receptacle. The receptacular spines vary from short and crested to lacinate and are half as long as the achenes. The spines are actually sclerified receptacular outgrowths, rather than hairs of the type common in the subtribe Hebecliniinae.

LITERATURE CITED

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